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EXAMINER

JANVIER, JEAN D

ART UNIT	PAPER NUMBER
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3622

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/840,166

Applicant(s)

OGAWA ET AL.

Examiner

Jean Janvier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Detailed Action

Specification

The title of the invention is not descriptive so as to help one having ordinary skill in the art understand the nature of the subject matter. A new title is required that is clearly indicative of the invention to which the claims are directed.

Status of the claims

Claims 1-26 are currently pending in the Application.

Claim Objections

Claims 1, 7, 15 and 24 are objected to because of the following informalities:

After independent claim 1, all dependent claims should refer to - -The expendable supplies providing method....-- instead of "An expendable supplies providing method...".

Concerning claim 7, line 5, "contents obtained form specific client users in..." should apparently be - - contents obtained from specific client users in....--.

Still, concerning claim 7, line 23, "be received to a print apparatus to be connected....," should apparently be --be received by a print apparatus to be connected....--.

Concerning claims 15 and 24, line 12 and line 17 respectively, "and an consumption ..." should apparently be --...and a consumption....--.

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Still concerning claim 15, line 13, "...in the HTML..." should apparently be --
...in HTML...--.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 13 is directed to a non-functional and non-descriptive subject matter because the claim recites **a control program**, which is Software per se. A claim to Software per se does not belong to any statutory or well-defined class or subject matter. However, a computer readable medium, such as a Hard disk drive, containing the Software comprising instructions or codes to perform the steps recited therein, as featured in claim 14, is statutory.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 12, 13 and 14 (including their dependent claims) are rejected under 35 USC 112, second paragraph for being indefinite for including "the same" in "...to print the same" because the claims include elements not actually disclosed (those encompassed by "the same"), thereby rendering the scope of the claims unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Yeung, US Patent 6, 690,481B1.

The applied reference has a common Assignee (Canon) with the instant Application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor(s) of this Application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

As per claims 1-26, Yeung teaches an Internet-based push printing over the Internet for automatically printing without the intervention of a user push content from

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Internet sources, such as merchants or content providers, using a printer connected to a user's home set-top box coupled to the Internet via a cable head end linked to the set-top box by a digital cable network. The push content or print job from an Internet source is uniquely addressable to the set-top box. Furthermore, the push content or print jobs, such as bank statements, utility bills, advertisements and/or coupons, periodicals, from the Internet source, such as a bank, a utility company, a publication company or an advertiser, is being directed to the user's home from a remote Internet site. In a preferred embodiment, the print job is delivered through a client application executing at the cable head end 6, wherein, for example, a client application 22 is operable to generate a monthly cable guide for printout in a viewer's or the user's home. Moreover, a news retrieval service obtains news on behalf of the user from a variety of Internet sources based on automatic searches (push technology) performed over the Internet in accordance with the user preferences and collates such news to be automatically printed out, without the user's intervention, to the reader's or user's home printer connected to the set-top box (See abstract; col. 1: 7-13; col. 2: 3-54; col. 8: 3-25; col. 9: 51 to col. 11: 16; fig. 1).

In general, Yeung teaches a system for “push printing” from internet sources to a set top box through a cable head end connected to the set top box by a digital cable network. Push printing includes printing by unicast (point-to-point) printing from a remote internet source to a specifically designated printer connected to a specifically addressed set top box, multicast (one-to-many) printing from a single remote web source to multiple ones of printers connected to respective set top boxes, and one-to-group printing from a single remote web source to a group of set top boxes defined at the cable head end. Both unicast and multicast printing are accomplished from the remote Internet

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site to a cable head end connected to the Internet, with the cable head end transmitting the print job via a digital cable network to subscriber set top boxes (STB). **Notification of print status is provided from the set top box back to the cable head end, thereby allowing the cable head end to provide notification of successful printout back to the remote Internet site (See abstract).**

The cable head end has access to the Internet, through which print jobs can be received. The print job with its printed content is submitted from a remote Internet site, received by the cable head end over the Internet, and transmitted via the digital cable network to a specific home set top box to which a printing device or printer is connected.

The system preferably supports one-to-many printing in a multicast configuration, through the use of a **preferences directory (profile) stored at the cable head end, with the preferences directory including a list of set top boxes to which print jobs (news, periodicals, advertisements) may be addressed.** The preferences directory may also define groups, so as to support one-to-group printing. **Upon receipt of a multicast print job from an upstream remote merchant over the Internet, the cable head end accesses the user preferences directory so as to determine which users should receive the multicast print job (transmitting a targeted print job or advertisement to specific set-top boxes based on the users' preference or profile stored in a preference directory file).** If desired, a multicast protocol may be utilized so as to send the print job to selected set top boxes for printout thereby.

In a related aspect of the system involving notification process based on a notification protocol, which allows notification of an upstream Internet site or

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advertiser's site that a printing job or printout for a downstream Internet site has been successfully completed. Thus, an Internet site at which a push print job has originated may be notified, using such a notification protocol, that the print job has been successfully completed, through notification protocols that are transmitted upstream from the set top box to the cable head end and from the cable head end over the Internet to the originating site.

According to this aspect of the system, and in conjunction with receipt of a print job by the set top box, the set top box builds a notification protocol including client at the set top box so as to transmit confirmation of the print job back to the cable head end (sending confirmation of the print job upstream to the head end server or head end system). To do so, the cable head end builds a notification server protocol, which communicates to the client protocol built by the set top box, so as to obtain confirmation of the print job status and so as to transmit the print notification back to the next-upstream Internet site, if such is desired.

See col. 2: 3-60; figs 1-13.

It is envisioned herein that the print jobs received by cable head end 6 are print jobs from merchants located remotely and connected to cable head end 6 via the Internet. Examples of merchants and corresponding print jobs include a bank that prints out bank statements directly into a customer's home, utility companies that print out utility bills directly at a consumer's home, advertisers that printout advertisements and/or coupons directly at a consumer's home, newsletter/news clipping services that print out periodicals directly in a reader's home, and the like.

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It is also possible for the print job to be delivered from a client application executing at cable head end 6, for example, a client application 22 that generates a monthly cable guide for printout in a viewer's home, a news retrieval service which, based on automatic searches performed in accordance with user preferences over the internet, obtains news from a variety of internet sources, collates such news, and prints news out directly in a news reader's home, and the like. Multiple other arrangements are easily envisioned. What is preferable in the context of the invention, however, is that the print job is received by CPSI spooler 20 in cable head end 6 in a printer-independent format such as the aforementioned printer description languages (col. 8: 3-25).

FIGS. 7A and 7B show respective processing by the cable head end and by the set top box in response to a print job. Referring first to FIG. 7A, step S701 illustrates receipt by the cable head end of a print job from a remote Internet source or an advertiser or from an application such as 22 at the cable head end. In step S702, the cable head end retrieves the user profile (print point) from directory 21 (FIG. 2). **Based on the user profile, cable head end determines (in step S703) whether or not to accept or to reject the job or an advertising message.** If the job is rejected, then the flow or process advances to step S705 and the job is not processed further. **It is possible for step S705 to send information back to the upstream remote Internet site, indicating that the job has been rejected (A notification is sent out to indicate that the incoming print job or advertising message was not successfully printed because it is incompatible to the user's profile- Col. 11:43-55).**

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On the other hand, if the job has not been rejected, flow advances to step S706, in which, **based on destination information (profile information) included with the print job, the cable head end determines the destination address or addresses for the print job. Steps S707 and S709 create logical printers if they are needed. That is, if a corresponding logical printer or printers do not already exist in spooler 20, the needed logical printer or printers are created in CPSI spooler 20 (FIG. 2), with a separate logical printer being created for each different printer needed to accomplish the unicast or multicast printing. That is, in a unicast mode, since only a single printer is involved, then only a single logical printer corresponding to the printer in question is created. On the other hand, in a multicast or broadcast mode, multiple users and multiple printers are the destination for the print job. It is possible, however, for several of the multiple users to employ the exact same printer and printer configuration (determining the type of printing devices and printing configuration associated with the destination STBs). As a consequence, although it is likely that multiple logical printers are created in the CPSI spooler at the cable head end, it is equally likely that a single logical printer will be able to support several users because each of the several users will have exactly the same printer type and configuration (col. 11: 56 to col. 13: 11).**

The print job is thereafter scheduled and deposited into the user's queue (step S710), for rendering by the logical printers (or spooled for subsequent rendering just prior to delivery to the STB). It is possible to render the print jobs into a bit map rasterized format, as, but this is not ordinarily necessary. Rather, all that is necessary is for the logical printers to process the print job for subsequent use by the set top boxes. In step

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S711, the print job from each logical printer is unicast or broadcast to the destination address or addresses. **Thereafter, in step S712, the cable head end builds a notification server so as to await notification of printout from each of the set top boxes to which print data has been transmitted (receiving notification or confirmation of printout or print job printed by a specific destination printer connected to a particular set-top box or STB and storing the received confirmation or print job status at least in RAM or in a print point file or database file related to the head end server-Col. 12: 12-25).**

Additionally, FIG. 7B illustrates process steps performed by the set top box in response to receipt of a print job transmitted from the cable head end over the digital cable network. Thus, in response to receipt of a print job (step S720), the set top box executes the print job (step S721) so as to print the print job on its attached printer. It is possible for the set top box to utilize the CPSI spooler arrangement discussed above (see embodiment of FIG. 5), but this is not mandatory. Rather, according to this aspect of the system, it is only necessary for the set top box to receive the print job and to cause its attached printer to print it (col. 12: 26-36).

In step S722, **the set top box builds a notification client for communication with the corresponding confirmation server built at the cable head end in connection with step S712. The notification client in the set top box then communicates with the notification server at the cable head end (step S723) so as to notify the cable head end of ongoing print status. In particular, the notification client at the set top box notifies the cable head end as each sheet of the print job is**

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commenced, as each sheet is concluded, and as the print job is concluded (here, the system can determine for each specific printer the amount of sheets or expendable supplies used in the printing of the print job or advertising message...). In addition, the notification client permits interaction from the user at the set top box, whereby the user at the set top box can modify his print queue by canceling jobs or advancing jobs out of sequence from the queue (Col. 12: 37-49).

At the cable head end, and based on information received from the notification client at the set top box, the cable head end can distribute print status information as appropriate. For example, it is possible for the cable head end to transmit print status back to the originating merchant at the remote Internet site, so as to permit the merchant to confirm that the print job has been successfully completed. Alternatively, or in addition, it is possible for the cable head end to utilize the print status information so as to monitor, maintain and manage print queues for each and every one of the set top boxes connected to the digital cable network (col. 12: 50 to col. 13: 17).

In the embodiment illustrated in FIG. 9, the print job data are provided to CPSI spooler 20 along with the identification information related to the subscriber or user to whom the print data are to be sent. The print data are provided from client application 15 to CPSI spooler 20 in a device-independent format. CPSI spooler 20 then refers to preferences directory 21 (user's profile or print point file) to obtain the necessary information corresponding to the subscriber, such as the print driver information for printer 12 connected to STB (set-top box) 10 corresponding to the subscriber. CPSI spooler then transforms the print data from the device-independent

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format into a rasterized format by using a printer driver, which corresponds to printer 12.

The rasterized print data is then spooled by CPSI spooler 20 of CHE 6 for transmission to STB 10 (col. 14: 33 to col. 15: 35).

Moreover, the system can determine the type of printer used or connected to the set-top box and allow the set-top box to download from the head end server a (new) printer driver to be installed therein where it is used to enable printing. Thereafter, the system or the CHE or head end server updates the user's preferences directory (print point file) to reflect this action (See col. 16: 55 to col. 18: 46; fig. 13).

Conclusion

Any inquiry concerning this communication from the Examiner should be directed to Jean D. Janvier, whose telephone number is (571) 272-6719. The aforementioned can normally be reached Monday-Thursday from 10:00AM to 6:00 PM EST. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Mr. Eric W. Stamber, can be reached at (571) 272- 6724. Non-Official- 571-273-6719.

Official Draft : 571-273-8300

12/20/05

JDJ

Jean D. Janvier

Patent Examiner

Art Unit 3622

JEAN D. JANVIER
PRIMARY EXAMINER

